

## A NEW GENUS FOR *CORALLIANASSA XUTHA* MANNING (CRUSTACEA: DECAPODA: CALLIANASSIDAE)

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*Abstract.*—The new genus *Corallichirus* is recognized for species formerly placed in *Corallianassa* that have subequal second and sixth abdominal somites. This new genus contains two American and at least one Indo-West Pacific species.

Among the genera recognized by Manning & Felder (1991) in their revision of American genera of callianassid ghost shrimps is *Corallianassa* Manning, 1987. This genus contains two groups of species that can be separated on the basis of the length of the second abdominal somite. In the group containing the type species, *Corallianassa longiventris* (Milne Edwards, 1870) from the western Atlantic, the second abdominal somite is much longer than the sixth (Fig. 1a), as long as the sixth somite and telson combined. In the second group, the second somite is no longer than the sixth (Fig. 1b); this group contains two American species, *C. hartmeyeri* (Schmitt, 1935) and *C. xutha* Manning, 1988.

A second difference, size of adults, also can be used to distinguish members of the two groups of species. A new genus is recognized here for the smaller species with the short second abdominal somite.

Abbreviations used below include: A1, antennule; A2, antenna; mm, millimeters; Mxp3, third maxilliped; Plp1-5, first to fifth pleopods. Total length is measured on the midline and carapace length is postorbital carapace length.

Family Callianassidae Dana, 1852  
Subfamily Callichirinae  
Manning & Felder, 1991  
*Corallichirus*, new genus  
Figs. 1b, 2

*Type species.*—*Corallianassa xutha* Manning, 1988.

*Definition.*—Size small, adults not exceeding 60 mm in total length. Carapace with dorsal oval and rostral spine, lacking cardiac prominence and rostral carina; anterior margin of carapace with 3 spines, median extending to cornea. Cornea subglobular, appearing terminal. A1 peduncle not stouter than A2 peduncle. Mxp3 subpediform, without exopod; merus not projecting beyond articulation with carpus. Chelipeds unequal, major lacking meral hook. Second abdominal somite subequal in length to sixth somite. Plp1 slender and uniramous, Plp2 slender and biramous, Plp3-5 foliaceous and biramous in both sexes; male Plp2 without appendix masculina; appendices internae present on Plp2-5 in both sexes: digitiform and distal on Plp2, articulated, extending as palp beyond margin of endopod on Plp3-5.

*Included species.*—Two from the Americas, *Corallichirus hartmeyeri* (Schmitt, 1935), new combination, from Jamaica and Ascension Island (Manning & Chace 1990), and *Corallichirus xuthus* (Manning, 1988), new combination, from localities between Baja California and the Galapagos Islands in the eastern Pacific.

*Callichirus placidus* (De Man, 1905), new combination, from the Indo-West Pacific, is also placed in this new genus, as it too has a short second abdominal somite.

*Etymology.*—The name is derived from the Greek, *korallion*, coral, and *cheir*, hand; it combines the generic names *Callichirus* and *Corallianassa*. The gender is masculine.

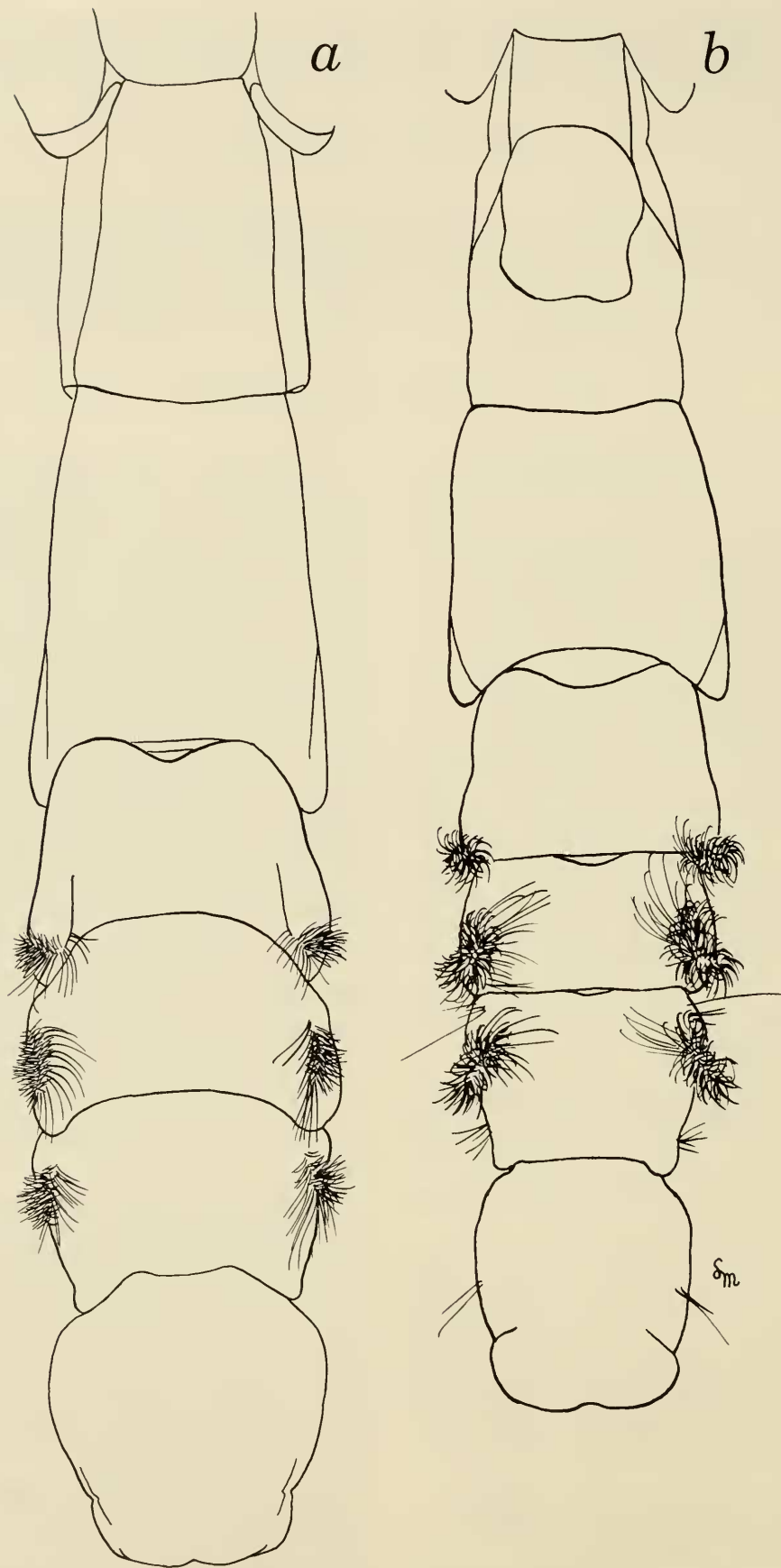


Fig. 1. Abdomen in dorsal view of: a, *Corallianassa borradailei* (De Man, 1928a) (from Manning 1987: fig. 9b); b, *Corallichirus xuthus* (Manning, 1988) (from Manning 1988: fig. 3g).

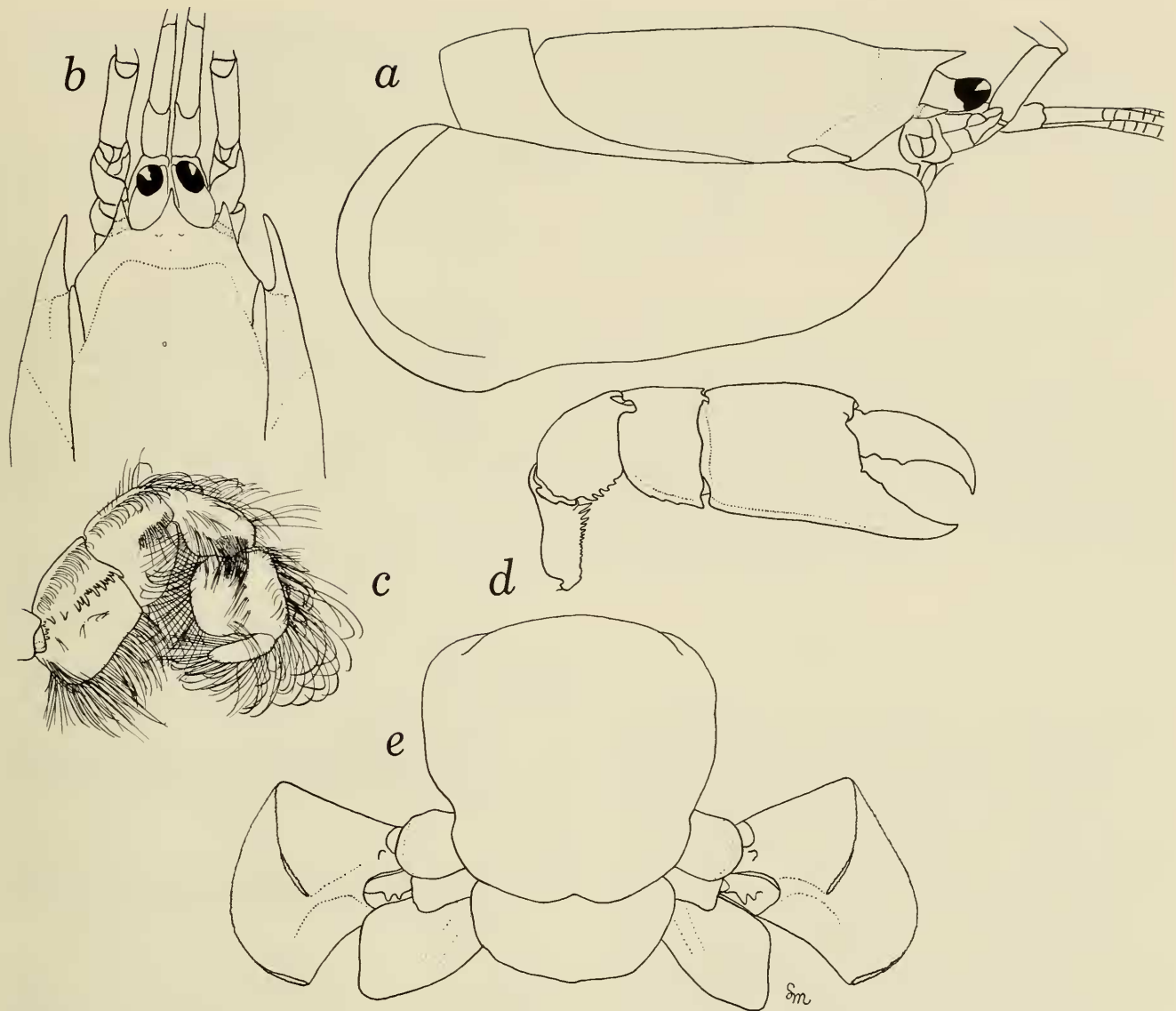


Fig. 2. *Corallichirus xuthus* (Manning, 1988). Ovigerous female, Clipperton Island, total length 55 mm. a, Carapace and frontal appendages, lateral view; b, Anterior part of carapace and anterior appendages, dorsal view; c, Mxp3, inner face; d, Major cheliped, outer face; e, Sixth abdominal somite and tail fan. (From Manning 1988: fig. 3a-d, i.)

**Remarks.**—*Corallichirus* is erected for species formerly placed in *Corallianassa* in which the second abdominal somite is subequal in length to the sixth abdominal somite (Fig. 1b). *Corallianassa* is restricted to species in which the second abdominal somite is distinctly longer than the sixth somite, almost as long as the sixth somite and telson combined (Fig. 1a). This diagnostic feature was used by De Man (1928b:108, 171) and subsequently by Manning (1988: 888) to differentiate species of *Corallianassa*.

Another feature that may help to distin-

guish members of these two genera is maximum size. Whereas adults of *Corallianassa longiventris* may attain a total length of 100 mm and a maximum carapace length of 25 mm (based on specimens from Lake Worth, Florida in collections of the National Museum of Natural History, Smithsonian Institution, Washington, D.C.), members of *Corallichirus* are much smaller, with a maximum total length of 55 mm and a maximum carapace length of less than 10 mm (Manning 1988).

I consider the dissimilarity in length of the second abdominal somite in members

of *Corallianassa* and *Corallichirus* to be a fundamental morphological difference. It certainly reflects a major difference in the amount of space required for an animal to turn in its burrow, thereby in part determining the shape of the burrow which must be very different in members of the two genera.

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### Literature Cited

- Dana, J. D. 1852. Macrourea. Conspectus Crustaceorum & Conspectus of the Crustacea of the Exploring Expedition under Capt. C. Wilkes, U.S.N.—Proceedings of the Academy of Natural Sciences of Philadelphia 6:10–28.
- Man, J. G. de. 1905. Diagnoses of new species of macrurous decapod Crustacea from the “Siboga-Expedition”.—Tijdschrift des Nederlandsche Dierkundige Vereeniging (2)9:587–614.
- . 1928a. A contribution to the knowledge of twenty-two species and three varieties of the genus *Callianassa* Leach.—Capita Zoologica 2(6): 1–56, pls. 1–12.
- . 1928b. The Thalassinidae and Callianassidae collected by the Siboga-Expedition with some remarks on the Laomeidiidae. The Decapoda of the Siboga-Expedition, Part 7.—Siboga-Expeditie, Monographie 39a6:1–187, pls. 1–20.
- Manning, R. B. 1987. Notes on western Atlantic Callianassidae (Crustacea: Decapoda: Thalassinidea).—Proceedings of the Biological Society of Washington 100:386–401.
- . 1988. The status of *Callianassa hartmeyeri* Schmitt, 1935, with the description of *Corallianassa xutha* from the west coast of America (Crustacea, Decapoda, Thalassinidea).—Proceedings of the Biological Society of Washington 101:883–889.
- , & F. A. Chace, Jr. 1990. Decapod and stomatopod Crustacea from Ascension Island, South Atlantic Ocean.—Smithsonian Contributions to Zoology 503:1–91.
- , & D. L. Felder. 1991. Revision of the American Callianassidae (Crustacea: Decapoda: Thalassinidea).—Proceedings of the Biological Society of Washington 104:764–792.
- Milne Edwards, A. 1870. Révision du genre *Callianassa* (Leach) et description des plusieurs espèces nouvelles de ce groupe faisant partie de la collection du Muséum.—Nouvelles Archives du Muséum d’Histoire Naturelle, Paris 6:75–101, pls. 1, 2.
- Schmitt, W. L. 1935. Mud shrimps of the Atlantic coast of North America.—Smithsonian Miscellaneous Collections 93(2):1–21, pls. 1–4.

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